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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,487	01/09/2002	Andreas Beutler	W-W Case 48	6101

7590 03/11/2003

Flynn, Thiel, Boutell & Tanis, P.C.
2026 Rambling Road
Kalamazoo, MI 49008-1699

EXAMINER

LEO, LEONARD R

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 03/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,487

Applicant(s)

BEUTLER ET AL

Examiner

Leonard R. Leo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 5, 7 and 16-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 8-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claims 1-23 are pending, and claims 16-23 are withdrawn.

Election/Restrictions

Applicant's election of the species of Figure 3 and the sub-species of Figure 5 in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 5 and 7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species and sub-species, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 6 and 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 4 and 6, the claims appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Regarding claims 8-9, it is not clearly understood what structure of the secondary grooves "expand."

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8, 10, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kastner et al. Regarding claims 2-4, the helical fin 2 has an annular and axial component. Regarding claim 8 as best understood, the secondary groove 8 “expands” to about 38% of the height of fin 2.

Claims 1-4 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nosetani et al. Regarding claims 2-4, the helical fin 4 has an annular and axial component.

Claims 1, 3, 8-11 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakon et al. Regarding claim 3, the fin 10 is annular. Regarding claims 8-9 as best understood, as permissibly gleaned from Figure 5(b), the secondary groove 16 “expands” to about 5% of the height of fin 10. Regarding claim 11, the fin 10 is notched by groove 11.

Claims 1-4, 6, 10-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishizawa et al (Figures 7-8). Regarding claims 2-4, the helical fin defined by groove 11 has an annular and axial component. Regarding claim 11, the fin defined by groove 11 is notched by groove 12.

Claims 1-4, 11 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu et al. Regarding claims 2-4, the helical fin 21 has an annular and axial component. Regarding claim 11, the fin 21 has notch 51.

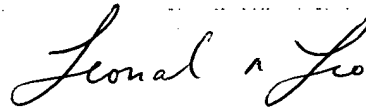
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Claims 1-4, 8, 10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Randlett et al. Regarding claims 2-4, the helical fin 21 has an annular and axial component. Regarding claim 8 as best understood, as permissibly gleaned from Figure 2, the secondary groove 20 "expands" to about 21% of the height of fin 12.

Conclusion

Any inquiry of a general nature, relating to the status of this application or clerical nature (i.e. missing or incomplete references, missing or incomplete Office actions or forms) should be directed to the Technology Center 3700 Customer Service whose telephone number is (703) 306-5648.

Any inquiry concerning this Office action should be directed to Leonard R. Leo whose telephone number is (703) 308-2611.



LEONARD R. LEO
PRIMARY EXAMINER
ART UNIT 3743

March 9, 2003